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31 JUL 1951

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SACRAMENTO, CALIFORNIA

APRIL-MAY-JUNE
1951

STATE OF CALIFORNIA

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THE BULLETIN

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A. A. BROCK ..... Director
EDNA WILLIS GASKILL ..... Editor

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YELLOW LEAF ROLL OF PEACH

ARCHIE SCHLOCKER, Associate Plant Pathologist, California Department of Agriculture, and GEORGE NYLAND, Assistant Plant Pathologist, University of California, College of Agriculture, Davis

Yellow leaf roll was first found and recognized as an apparently new disease of peach in the spring of 1950. Its presence is known in the "peach bowl" of California with two main areas of infection. The heaviest concentration has been found in a small portion of Yuba County, and the disease is also known to occur in lesser amounts in an area several miles to the west in adjoining Sutter County. In addition, some infected trees have been found on the south and on the north edges of the "peach bowl" area.

Preliminary transmission tests in the field indicated that yellow leaf roll was caused by a virus.* Additional transmission tests carried on in the greenhouse have substantiated these results. Information is rather limited as to the rapidity of spread of the disease in the orchard and its development in a tree, but information supplied by growers and field observations indicate rapid spread in some orchards.

A yellow color of the foliage on affected trees sets them off in strong contrast to normal trees. Leaf symptoms consist of marked yellowing of entire leaves, an inward rolling of the leaf edges toward the midrib on the upper surface, reddish to brown discoloration and scorching of leaf edges, some marginal and laminal necrotic spotting resulting in ragged leaves, and a broadening or enlargement of the leaf midribs and veins. Affected leaves drop earlier than healthy ones, so that twigs may become bare of foliage except for a few terminal leaves, which tend to remain green. Such defoliation is especially noticeable in late summer and early autumn.

Yellow leaf roll appears to start on one or more limbs and to advance upward from the bases of affected main scaffold limbs, spreading throughout the tree. Portions of branches, entire branches, scaffold limbs, or entire trees may be showing symptoms at the time affected trees are examined. Frequently terminal, healthy-appearing "flags" may be present on an otherwise completely diseased limb. The contrast between the healthy and diseased portions of the tree is very striking.

Many diseased limbs and watersprouts die by December of the same year that they show symptoms. In many cases observed, trees that were showing symptoms on all or most of the limbs during the growing season were dead the following spring.

There is a failure of fruit production or an arresting of fruit development, the degree dependent upon the stage of fruit development at the time the branch becomes affected. Some branches produce only "nubbins." It has been observed that fruits on affected branches are easily

* Nyland, George, and Archie Schlocker. Yellow Leaf Roll of Peach, Plant Disease Reporter 35(1) :33. January, 1951.

detached, falling to the ground when the branch is shaken, even gently, where under the same circumstances normal fruit would remain on the tree.

The symptom picture does not fit any previously known virus disease or other disorder of peach trees. It resembles in some respects the Western X-disease of peaches which also occurs in the same area. In their typical forms, however, the two diseases can be distinguished readily from each other. Intermediate symptom types have been observed and final identification of these must await further investigation.

There appears to be no varietal resistance and apparently trees of any age may be affected. In the affected area the disease has been observed in the field on at least 7 of 12 common varieties of clingstone peaches, and it produces practically identical symptoms on each. Only clingstone varieties have been found affected, but there are not many freestones in the area. Results of experimental inoculations of freestone varieties indicate that freestones are susceptible to yellow leaf roll.

Plate I—Yellow leaf roll in clingstone peach. Upper—Tree with a large limb affected. Note premature leaf fall. Photograph by courtesy of L. C. Cochran, U. S. D. A.

Lower—Yellow leaves on current season shoot. Note enlarged veins, leaf rolling, marginal coloration on one leaf, and tendency for leaves on end of twig to remain green.

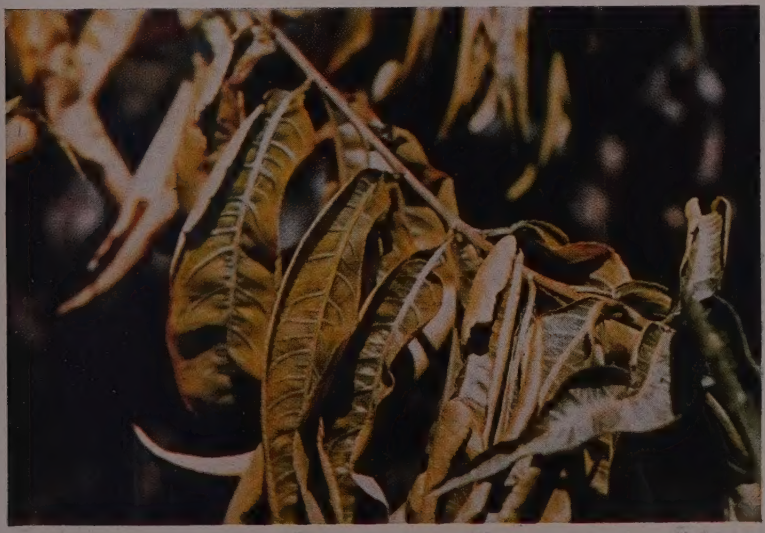
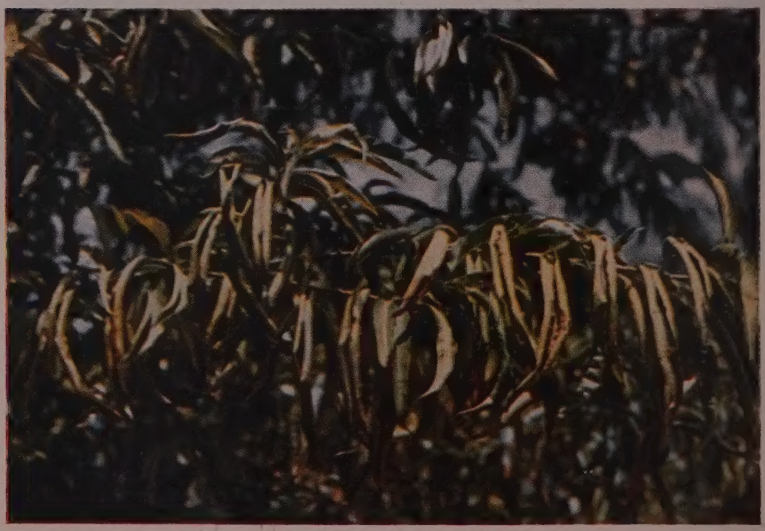


Plate II—Yellow leaf roll in clingstone peach. Upper—Terminal, healthy-appearing "flag" at right. Note diseased shoots at base of "flag" and completely diseased limb at left.

Lower—Current season shoots with extreme inward rolling of leaf edges. Some marginal burning also visible.



PEACH MOSAIC

GILBERT L. STOUT, Chief, Bureau of Plant Pathology
California Department of Agriculture

Peach mosaic, an infectious disease caused by a virus, was so named because of the pattern produced in the leaves of affected trees. It first attracted attention in 1931 in Texas and Colorado. Later it was identified in Southern California, Utah, New Mexico, Arizona, southern Oklahoma, and more recently in western Arkansas. It also has been reported in Mexico. In California it is known only in the south—in Los Angeles, Riverside, San Bernardino, and San Diego Counties, where measures to suppress it have been carried on since 1936 by a cooperative federal, state, and county project. Two infected peach trees were found in Imperial County and three in Orange County in 1939, but following removal no more were found on subsequent inspections.

Nectarines as well as peaches are affected. The virus can infect almonds, apricots, plums, and prunes and some forms of it can produce symptoms in these hosts, usually leaf mottle, but damage to them is nearly negligible under Southern California conditions. Sweet, sour, mazzard, and mahaleb cherries appear to be immune.

The peach mosaic virus occurs in many forms which vary in virulence from those which severely injure susceptible peach varieties to others which produce symptoms so mild that diagnosis is difficult. There also is a great deal of variation in susceptibility among peach varieties. In general freestones are more severely affected than clingstones. Especially susceptible varieties are J. H. Hale, Elberta, Rio Oso Gem, and others having similar heritage. Trees severely affected in the early spring often show less pronounced symptoms as the season progresses. Also, such trees exhibit a severe shock effect during the first year of the disease, after which there follows a course from acute to chronic phases in which a tendency toward recovery appears. The virus continues, however, to live in the tree. Affected peach trees, therefore, present a complexity of symptoms which vary according to virulence of the particular form of the virus, variety of host, season, and length of time a tree has been infected.

Symptoms can be found in the different parts of a tree. Five important symptoms are color breaking in flowers, retarding of foliage development in the spring, mottling and deformity of leaves, deformity of fruit, and dwarfing of twigs. Infected trees are not killed by the virus.

In varieties of peach and nectarine which have large, showy pink flowers, a breaking in the normally solid color of the petals results in striking patterns made up of boat-shaped spots and variously shaped streaks and splashes. The spots vary in size, often overlap or coalesce, and may be white or have white, often line-like, margins with an island of pink in the center. Affected flowers may be crinkled and sometimes dwarfed.

In highly susceptible varieties leaf growth and new twig growth may be greatly retarded in the spring. The degree of retardation varies with the form of the virus. The retarded condition may persist well into the summer, but as the season advances there is a tendency for the contrast between diseased and normal appearing branches and trees to become less pronounced.

Leaf symptoms vary according to variety of peach, season, and form of the virus. An important character is the presence of variously shaped yellow discolorations most noticeable in the spring and causing the leaf to be mottled with yellow and green mosaic patterns. The discolorations vary in size and form from tiny, point-like flecks to irregular spots, blotches, and streaks. In trees affected with virulent forms the early leaves may be severely affected with mottle and deformity, wither and fall, while later leaves remain on the tree but are more or less dwarfed, irregular in shape, and mottled. Leaves on trees less severely affected commonly exhibit mottling but little or no deformity. Necrotic areas and sometimes chlorotic areas fall, leaving holes and irregular leaf edges. In mottled leaves which remain on the tree through the season there is a tendency for the yellow areas to change or fade and disappear. After the first year the leaf symptoms tend to become less severe and, in highly tolerant varieties, may eventually be very difficult to find.

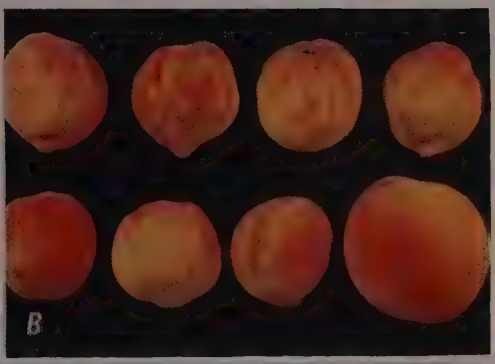
In severely affected susceptible varieties, fruit symptoms appear when the young green fruit attains a size of about an inch or more in diameter, or at about the time the stone is hardening. Affected fruits become deformed and bumpy, often with irregular ridges or round raised areas or islands of surface tissue surrounded by depressions. The deformity often is most pronounced along the suture. Mosaic-affected fruits commonly do not increase in size as rapidly as normal fruits, may be severely dwarfed, and frequently ripen a few days later than normal fruits on the same tree or of the same variety. In more tolerant varieties the fruits are smoother, or may not be visibly affected, and the milder forms of the virus do not make the fruit bumpy, even in the more susceptible varieties.

The more severe forms of the virus cause the twigs to be dwarfed and spurlike in susceptible varieties. The internodes are shortened, twigs appear stubby, thick or swollen, and greater in diameter in relation to their length than normal twigs. Trees so affected while small become dwarfed.

The disease is capable of rapid spread in the orchard, presumably by an insect vector. The virus can be carried in budwood, scions and nursery stock, and the disease can be produced in a healthy tree by budding or grafting with material from a diseased tree.

Control and suppression of the disease is by intensive and repeated tree inspections and prompt removal of infected trees as soon as found so as to destroy them as sources of the virus to prevent spread to other trees. Infected trees retain the virus for life and no cure is known.

Peach mosaic: *A*, Florence peach flower showing broken color pattern; *B* and *C*, J. H. Hale peach (B) affected fruits, showing reduced size, bumpy surface, and uneven color as compared with normal at lower right, and (C) leaves showing a gradient of mosaic mottling (veinlet clearing, right; brilliant mottle, center; and marginal striping, left); *D*, partially affected J. H. Hale peach tree, showing retardation on affected side. Photographs by courtesy of L. C. Cochran and United States Department of Agriculture.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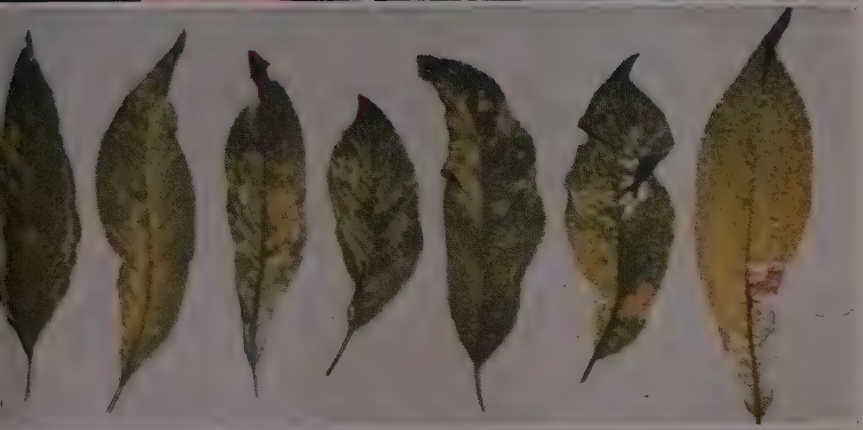

GEORGE A. SCOTT HONORED BY UNITED STATES DEPARTMENT OF AGRICULTURE

Upon recommendation of the Chief of the Bureau of Agricultural Economics, U. S. Department of Agriculture, George A. Scott, Chief of the California Crop and Livestock Reporting Service, a joint federal and state agricultural statistical service, with headquarters at the California Department of Agriculture, Sacramento, has been selected to receive a Superior Service Award from the Secretary of Agriculture. The award, consisting of a silver medal and citation, is the second highest the department may give to employees.

Mr. Scott has been an employee of the U. S. Department of Agriculture for more than 30 years, and on a cooperative basis, has been an employee of the California Department of Agriculture since 1928.

Selection of Mr. Scott to receive the award was announced on behalf of Secretary of Agriculture Charles Brannan by S. R. Newell, Assistant Chief of the Bureau of Agricultural Economics. The award was recommended by the Board of Superior Service Awards consisting of three distinguished private citizens and three officials of the U. S. Department of Agriculture, one of whom is the Director of Personnel.

The Superior Service Awards are made by the U. S. Department of Agriculture for meritorious service to American agriculture and rural life, effective public administration, meritorious execution of duties, and for other public services of unusual value beyond that ordinarily required.

AFTOSA MEXICANA

By Dr. C. U. Duckworth
Assistant Director, California Department of Agriculture *

Since December, 1946, when foot-and-mouth disease, or, as the Spanish people call it, aftosa, was diagnosed in Mexico, many articles have been written on the subject.

Needless to say, the United States was very much interested when the diagnosis was made and men and money were made available to assist Mexico in the eradication of the condition. The United States had been successful in eradicating it on numerous occasions through slaughter of affected and exposed animals, cleaning and disinfection of affected premises and restriction of the movement of commodities capable of disseminating infection. With the success of such procedure in this country, it was proposed and agreed upon by Mexico that a similar campaign be carried on there.

After the destruction of nearly 1,000,000 head of food-producing animals it became apparent to those directing the campaign that Mexico could not stand the economic impact of such campaign. The program was modified to provide for vaccination, with the idea in mind that the virus would die if there were no susceptible animals upon which it could propagate itself. It was recognized that vaccinated animals would not stand massive doses of infection and it was necessary, even after vaccination got started, to sacrifice certain herds of animals when infection appeared.

The Commission carrying on the work, composed of both Mexicans and Americans, sought vaccine throughout the world and found an inadequate supply available. It was necessary, therefore, to start manufacturing vaccine on a large scale. In June of 1948, 9,000 units were produced and this was gradually stepped up until a peak of 5,200,000 units was reached in August of 1949. A unit is sufficient to vaccinate one large animal or two small animals. In July of 1948, there were vaccinated 3,540 animals. This amount steadily climbed until in the month of December 1949 there were vaccinated in excess of 5,000,000 animals.

It was determined that the vaccine used brought about a high degree of resistance in the animals for a period of approximately four months. It was necessary, therefore, to revaccinate in order to have a long period of resistance. It was estimated that there were 15,000,000 susceptible animals in the area involved in Central Mexico, an area roughly the size of California and Oregon combined. All of the animals therein were vaccinated three times and most of them four times, the last vaccination involving some 17,000,000 animals. The last animals were vaccinated in July of 1950. Inspections have been carried on since then throughout the area to determine if the plan of vaccination has been successful or if virus still is alive and capable of infecting animals.

* Member of Industry Advisory Committee to American Section of Mexican-United States Commission for the Eradication of Foot-and-Mouth Disease.

It is significant to state that from December of 1949 no infected animals were found until the latter part of December of 1950, or a full year of freedom from the disease.

Some infection appeared in December, 1950, in a very well isolated village in the State of Vera Cruz. The animals were sacrificed and the premises cleaned and disinfected. Because of the isolation, it was hoped there would be no spread from that focus of infection.

During the course of the campaign, it was necessary to recognize that the great cattle raising area of Northern Mexico had lost its market with the closing of the border to the importation of cattle from Mexico. Through the combined efforts of the Mexican and United States governments and the cattle industry in Mexico, packing plants were erected and the meat put into cans. This canned meat was sold to those areas of Europe where food was in great demand. Recently, the inspection service of Mexico was recognized by the United States and canned meat became salable from Mexico into this country. With this method of marketing the livestock production of Northern Mexico, the necessity for border opening was not as great as it had been heretofore.

The personnel working on the campaign involved both Americans and Mexicans and at the high point reached to a figure in excess of 7,000 and the expenditures involved exceeded $2,500,000 per month. Personnel has been reduced to less than 3,000 at the present time and expenditures to around $600,000 per month.

Constant inspection and vigilance are necessary for some time to come before it can be definitely determined that the campaign has been successful and aftosa eradicated from our neighboring country. With such eradication, a great threat to the agriculture of the United States and its ability to produce food will have been removed.

FIG. 1. Left to right: Dr. C. U. Duckworth, Member, American Advisory Committee; General Harry H. Johnson, Co-director Mexican-American Commission for Eradication of Aftosa; Lic. Miguel Aleman, President of Mexico; Lic. Oscar Flores, Director of Commission; Albert K. Mitchell, New Mexico, Chairman American Advisory Committee; Dr. Lauro Ortega, Assistant to Flores.

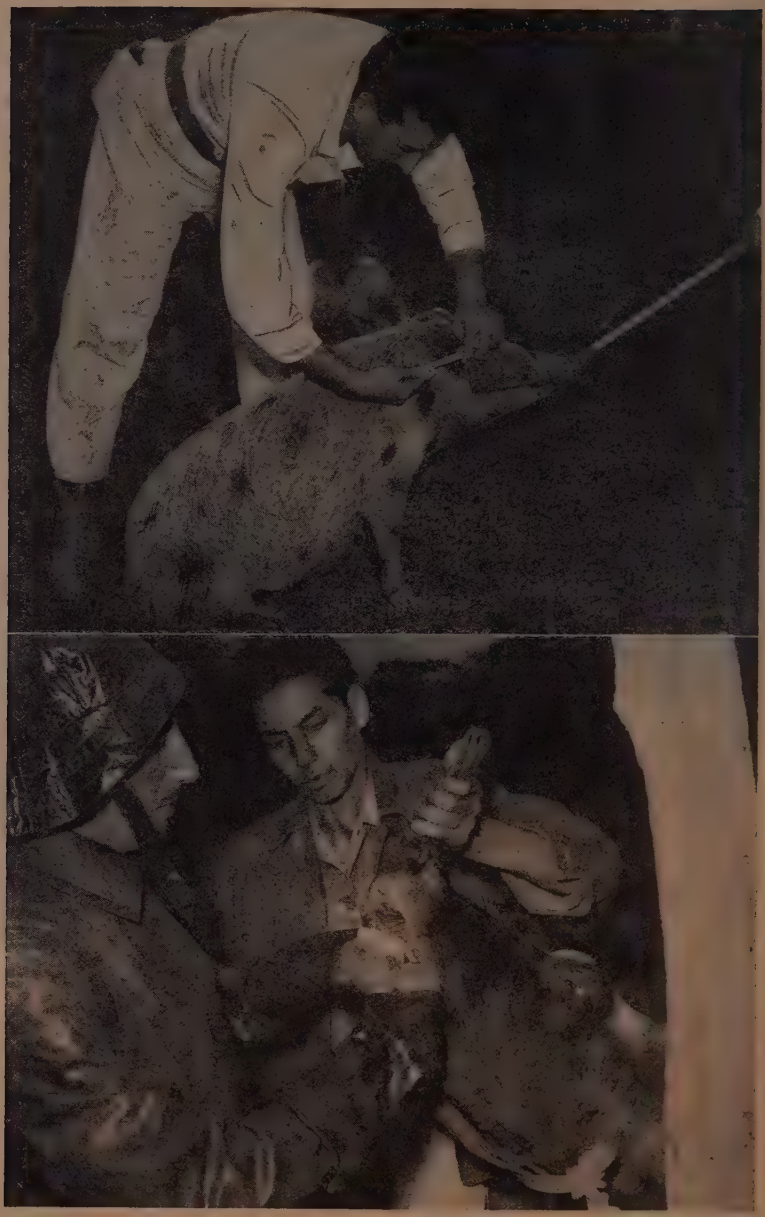

FIG. 2. Upper—A Mexican veterinarian vaccinates a pig as part of the control program directed against aftosa by the Mexican-American Joint Commission for control of the disease in the Southern Republic.

Lower—Regular inspection for aftosa by veterinarians in Mexico.

LEO JOSEPH WEISHAAR

Leo Joseph Weishaar, Chief of the Bureau of Market Enforcement, passed away at his Oakland home on May 22, after a recurring heart condition had forced him into semi-retirement for a period of several months. He was 68 years old.

"L. J.," as he was affectionately known to a host of friends and associates, not only in California but in many states, had risen to the position of Chief of the Bureau of Market Enforcement since his return from private fields to state service in 1933.

In his youth Mr. Weishaar became associated with the fruit and produce business in the great terminal market at Chicago following graduation, with honors, from Washington University at St. Louis. As a young man he was a splendid singer, often appearing in concerts and on the radio. He was a lover of music, the arts, and classical literature—he could recite long passages from Shakespeare without effort. Weishaar was equipped not only with a brilliant mind, but with boundless energy and a warm affability. He was regarded by his associates, not only with respect, but with loyal and warm affection.

Professionally, he had few if any equals in his keen and profound knowledge of the fruit and produce industry, including farming operations and distribution; the "trade," from Maine to California, knew "L. J." as an expert, and knew him also as a man who vigilantly enforced, fairly and impartially, the complicated laws assigned to his stewardship. He was an outstanding hearing officer, having studied law so that he might capably discharge the exacting duties of that position. In his work, he was tireless.

Personally, he drew to himself countless friends. His inner warmth, his innate goodness, and his quiet humor embraced and held those whom he knew, either in his work or otherwise. "L. J." left here his wife, and a splendid family of grown men and women—seven sons and two daughters, to honor with everlasting pride the man they knew as a loving and devoted husband and father. He left also the many friends of his official family. They will miss him sorely, but his memory will remain ever green, and his hearty handclasp and warm smile are still here, it seems—just around the corner.—*C. J. C.*

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CALIFORNIA FRUIT AND NUT CROP ACREAGE ESTIMATES AS OF 1950

By N. P. Byrd and R. E. Blair

There was a combined total of 1,491,223 acres of tree fruits, nuts and grapes in California in 1950, which is about 1½ percent less than the 1,515,245 acres reported in 1949. The 1950 acreage consisted of 1,363,834 classed as bearing and 127,389 acres as nonbearing.

Included in the nonbearing group are 14,397 acres of reported new plantings made in 1950. New plantings in both 1950 and 1949 were moderate as compared with those made in earlier years.

Plantings which exceeded 1,000 acres included: 1,006 acres of almonds, 2,196 acres of raisin variety grapes, 1,343 of table variety grapes, 1,195 of lemons, 1,429 of clingstone peaches, 1,130 of freestone peaches, and 1,712 acres of walnuts. Total state plantings of other crops which exceeded 400 acres included: 706 acres of avocados, 655 wine variety grapes, 568 of plums, and 417 acres of prunes.

This report summarizes the most recent tabulations of county data as relating to plantings standing during 1950 and is the continuation of this series of reports such as have been made avaiable for many years. Fruit and nut crop acreage estimates have been provided annually through a cooperative undertaking between the respective county agricultural commissioners and the California Crop and Livestock Reporting Service,[1] partially from new enumerations and partly by recording changes from the previous year. Beginning in 1948 and continuing through 1949 and 1950, complete enumerations of commercial acreages have been made in many counties with the use of funds available through Research and Marketing Administration projects. In accomplishing this, federal funds were matched by the State and many of the counties.

The records in this report are believed to afford a dependable inventory of these acreages in 1950 and are about comparable with those of 1949. However, estimates for both 1950 and 1949 may not be fully comparable with those of other recent years, on account of the results of new surveys that have been completed more recently in various important producing counties which indicate some lack of exactness of the former estimates.

There is still some reduction of these perennial crop acreages occurring near population centers due to the continuing increase of population in California, which has resulted in additional requirements for residential and industrial sites.

The major changes from a previous year include: Acreages removed or abandoned, new plantings made, and the shifting from a nonbearing position to bearing. However, some of the abrupt acreage shifts are from the results of recent county surveys. There was less of this between 1949 and 1950 than between 1948 and earlier reports.

[1] The California Crop and Livestock Reporting Service is conducted jointly by the Bureau of Agricultural Economics of the United States Department of Agriculture and California Department of Agriculture.

This report records the estimates of acreages of these crops in the various counties of California in 1950, grouped as bearing and nonbearing. There are 25 separate tree and vine crops included, which are further segregated into 164 individual varieties or varietal groups. Bearing and nonbearing acreage segregations as used in this report have been arbitrarily established on a basis of age. There is, of course, no exact first bearing age that would apply to a variety of any of these crops in a county, but a careful effort has been made to adopt the most probable average period required for a new planting to come to production in each county.

STATE TOTALS CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES AS OF 1950

	Bearing	Nonbearing	Total	New plantings 1950[1]
Almonds	91,296	16,546	107,842	1,006
Apples—Gravenstein	7,883	76	7,959	----
Apples—Others	18,057	3,711	21,768	203
Apples—All	25,940	3,787	29,727	203
Apricots	45,719	1,784	47,503	119
Avocados	11,704	7,261	18,965	706
Cherries—Royal Ann	3,020	688	3,708	58
Cherries—Others	6,287	1,221	7,508	101
Cherries—All	9,307	1,909	11,216	159
Chestnuts	284	22	306	----
Dates	4,140	974	5,114	11
Figs—Kadota	5,987	164	6,151	----
Figs—Others	23,233	2,092	25,325	22
Figs—All	29,220	2,256	31,476	22
Filberts	34	4	38	----
Grapes—Raisin varieties	233,888	9,036	242,924	2,196
Grapes—Table varieties	91,862	5,164	97,026	1,343
Grapes—Wine varieties	159,419	4,264	163,683	655
Grapes—All	485,169	18,464	503,633	4,194
Grapefruit	9,954	390	10,344	32
Lemons	54,418	7,261	61,679	1,195
Limes	344	4	348	----
Nectarines	2,322	576	2,898	171
Olives	26,826	4,193	31,019	372
Oranges—Navel and Miscellaneous	79,529	1,875	81,404	255
Oranges—Valencia	132,394	8,860	141,254	350
Oranges—All	211,923	10,735	222,658	605
Peaches—Clingstone	44,059	8,261	52,320	1,429
Peaches—Freestone	32,843	5,226	38,069	1,130
Peaches—All	76,902	13,487	90,389	2,559
Pears—Bartlett	34,179	2,764	36,943	309
Pears—Others	5,142	331	5,473	30
Pears—All	39,321	3,095	42,416	339
Pecans	604	103	707	----
Persimmons	652	52	704	7
Plums	23,492	2,856	26,348	568
Pomegranates	481	35	516	----
Prunes	102,814	7,665	110,479	417
Quinces	184	----	184	----
Walnuts	110,784	23,930	134,714	1,712
Totals	1,363,834	127,389	1,491,223	14,397

[1] 1950 plantings included in 1950 nonbearing acreage.

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES AS OF 1950—STATE AND COUNTY SUMMARY
TOTAL ACRES BY CROP GROUPS

County	Principal deciduous tree fruits[1]	Citrus[2]	Other tree fruits[3]	Nuts[4]	All grapes[5]	Total
Del Norte	11					11
Humboldt	233		1	106	3	343
Mendocino	3,733			444	7,290	11,467
Shasta	687		838	118	358	2,001
Siskiyou	71			5	2	78
Trinity	42			87		129
Lassen	73					73
Modoc	27					27
Plumas	16					16
Alameda	3,807	7	25	1,216	3,062	8,117
Contra Costa	7,298	1	85	23,739	3,704	34,827
Lake	4,816		1	5,875	163	10,855
Marin	168			88	178	434
Monterey	2,729		5	4,798	71	7,603
Napa	11,187	1	99	1,596	10,179	23,062
San Benito	8,977		1	1,829	1,699	12,506
San Luis Obispo	831	1	3	10,162	615	11,612
San Mateo	178			121	13	312
Santa Clara	75,729	111	33	9,822	5,626	91,321
Santa Cruz	12,472	6	30	96	475	13,079
Sonoma	33,671	3	66	1,415	16,076	51,231
Butte	6,722	873	5,170	19,523	120	32,408
Colusa	4,515	13	45	11,896	164	16,633
Glenn	2,100	738	1,035	5,676	80	9,629
Sacramento	7,009	446	2,083	3,609	5,013	18,160
Solano	15,128	5	160	2,820	748	18,861
Sutter	20,513	3	58	11,051	131	31,756
Tehama	3,281	32	3,454	3,947	132	10,846
Yolo	4,181	19	1,021	10,370	571	16,162
Yuba	5,086	6	859	1,670	79	7,700
Fresno	16,993	4,017	18,755	2,777	169,109	211,651
Kern	2,876	1,465	490	262	30,417	35,510
Kings	3,379		351	830	8,284	12,844
Madera	2,024		2,109	567	19,129	23,829
Merced	8,656	20	9,899	11,344	17,530	47,449
San Joaquin	15,399		867	23,383	57,944	97,593
Stanislaus	19,539	16	460	15,897	16,930	52,842
Tulare	17,894	38,756	10,250	7,069	74,784	148,753
Alpine	6					6
Amador	379		5	190	778	1,352
Calaveras	130	1	263	608	214	1,216
El Dorado	4,888			192	79	5,159
Inyo	62		35		17	114
Mariposa	431		1			432
Mono	3					3
Nevada	1,231			25	73	1,329
Placer	16,374	12	374	454	1,805	19,019
Sierra	9					9
Tuolumne	622			38	4	664
Imperial	2	2,190	196	148	1,160	3,696
Los Angeles	2,035	48,563	4,179	10,226	1,368	66,371
Orange	70	65,649	2,680	1,550	55	70,004
Riverside	4,768	24,599	6,423	6,501	11,183	53,474
San Bernardino	4,306	43,239	708	4,891	31,794	84,938
San Diego	1,358	14,128	12,647	1,216	4,206	33,555
Santa Barbara	159	8,414	1,015	2,824	12	12,424
Ventura	2,092	41,695	1,199	20,536	206	65,728
STATE	360,976	295,029	87,978	243,607	503,633	1,491,223

[1] Includes apples, apricots, cherries, nectarines, peaches, pears, plums, prunes.
[2] Includes grapefruit, lemons, limes, oranges.
[3] Includes avocados, dates, figs, olives, persimmons, pomegranates, quinces.
[4] Includes almonds, chestnuts, filberts, pecans, walnuts.
[5] Includes raisin, table, and wine varieties.

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	APPLES—GRAVENSTEIN			APPLES—OTHERS			APPLES—ALL	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte				10		10	10	
Humboldt	6		6	193		193	199	
Mendocino	67		67	594	5	599	661	5
Shasta				259	55	314	259	55
Siskiyou				30		30	30	
Trinity				12		12	12	
Lassen				23	4	27	23	4
Modoc				27		27	27	
Plumas				16		16	16	
Alameda	1		1	9		9	10	
Contra Costa	8		8	24		24	32	
Lake				8	8	16	8	8
Marin	18	1	19	10		10	28	1
Monterey				717	367	1,084	717	367
Napa	110		110	205	28	233	315	28
San Benito				152	41	193	152	41
San Luis Obispo	4		4	198	32	230	202	32
San Mateo	1		1	47	9	56	48	9
Santa Clara				144	31	175	144	31
Santa Cruz	151	5	156	8,232	1,320	9,552	8,383	1,325
Sonoma	7,465	69	7,534	3,409	531	3,940	10,874	600
Butte	7		7	538	56	594	545	56
Colusa	1		1				1	
Glenn								
Sacramento				3		3	3	
Solano	4		4	2		2	6	
Sutter	5		5	28	12	40	33	12
Tehama				102	6	108	102	6
Yolo								
Yuba				10	1	11	10	1
Fresno	1		1	60	36	96	61	36
Kern				55		55	55	
Kings				5		5	5	
Madera				62	9	71	62	9
Merced				2		2	2	
San Joaquin				12		12	12	
Stanislaus					1	1		1
Tulare	8		8	346	168	514	354	168
Alpine				6		6	6	
Amador				59		59	59	
Calaveras	3		3	81	36	117	84	36
El Dorado	1		1	214	88	302	215	88
Inyo				55		55	55	
Mariposa				120	299	419	120	299
Mono				2		2	2	
Nevada	2		2	97	68	165	99	68
Placer	6		6	41	7	48	47	7
Sierra				9		9	9	
Tuolumne	1		1	495	67	562	496	67
Imperial								
Los Angeles	9	1	10	244	6	250	253	7
Orange				1		1	1	
Riverside				44	16	60	44	16
San Bernardino	4		4	603	142	745	607	142
San Diego				352	164	516	352	164
Santa Barbara				3	67	70	3	67
Ventura				87	31	118	87	31
STATE	7,883	76	7,959	18,057	3,711	21,768	25,940	3,787

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	APRICOTS			NECTARINES		
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total
Del Norte						
Humboldt						
Mendocino						
Shasta	15	2	17			
Siskiyou						
Trinity						
Lassen						
Modoc						
Plumas						
Alameda	2,972	132	3,104			
Contra Costa	2,938	386	3,324	155	10	165
Lake	3		3			
Marin	12		12			
Monterey	1,197	70	1,267			
Napa	46		46			
San Benito	4,310	113	4,423			
San Luis Obispo	223	14	237			
San Mateo	6		6			
Santa Clara	16,048	463	16,511			
Santa Cruz	424	11	435			
Sonoma	38		38			
Butte	25	10	35	24		24
Colusa	382	9	391			
Glenn	246		246			
Sacramento	40		40	1		1
Solano	3,899	170	4,069			
Sutter	15		15	38	4	42
Tehama	133	2	135	5		5
Yolo	1,921	80	2,001	3		3
Yuba	5		5	7		7
Fresno	1,051	18	1,069	966	167	1,133
Kern	253	4	257			
Kings	974	34	1,008	40	1	41
Madera	131	10	141	78		78
Merced	482		482	163	23	186
San Joaquin	1,081	95	1,176	83	5	88
Stanislaus	2,029	72	2,101	208	42	250
Tulare	130	10	140	527	324	851
Alpine						
Amador	3		3			
Calaveras	1		1			
El Dorado						
Inyo				4		4
Mariposa						
Mono						
Nevada						
Placer	14		14	3		3
Sierra						
Tuolumne						
Imperial	2		2			
Los Angeles	204	9	213	14		14
Orange	8	4	12			
Riverside	2,322	40	2,362			
San Bernardino	131		131	1		1
San Diego	134	12	146	2		2
Santa Barbara	33	4	37			
Ventura	1,838	10	1,848			
STATE	45,719	1,784	47,503	2,322	576	2,898

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	CHERRIES—ROYAL ANN			CHERRIES—OTHER			CHERRIES—ALL	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt				5		5	5	
Mendocino	3		3	3		3	6	
Shasta	6		6	8		8	14	
Siskiyou	2		2	8		8	10	
Trinity								
Lassen								
Modoc								
Plumas								
Alameda	296	12	308	149		149	445	12
Contra Costa	7	7	14	131	51	182	138	58
Lake								
Marin								
Monterey	3		3	59	72	131	62	72
Napa	52		52	110	2	112	162	2
San Benito				52	4	56	52	4
San Luis Obispo				2	2	4	2	2
San Mateo								
Santa Clara	790	411	1,201	1,772	571	2,343	2,562	982
Santa Cruz	109		109	176	2	178	285	2
Sonoma	551	27	578	85		85	636	27
Butte	4		4	8		8	12	
Colusa								
Glenn				5		5	5	
Sacramento	20		20	48		48	68	
Solano	46	1	47	277	1	278	323	2
Sutter	22		22	126		126	148	
Tehama	3		3	4	2	6	7	2
Yolo				12		12	12	
Yuba	3	2	5	40	8	48	43	10
Fresno				23	1	24	23	1
Kern								
Kings								
Madera								
Merced								
San Joaquin	1,019	221	1,240	2,508	413	2,921	3,527	634
Stanislaus	30	4	34	65	4	69	95	8
Tulare				3		3	3	
Alpine								
Amador	2		2	1		1	3	
Calaveras								
El Dorado	6		6	114	3	117	120	3
Inyo								
Mariposa								
Mono								
Nevada				9		9	9	
Placer	7		7	111	1	112	118	1
Sierra								
Tuolumne								
Imperial								
Los Angeles	5		5	34	13	47	39	13
Orange								
Riverside	25	2	27	295	43	338	320	45
San Bernardino	2	1	3	30	27	57	32	28
San Diego					1	1		1
Santa Barbara	7		7	14		14	21	
Ventura								
STATE	3,020	688	3,708	6,287	1,221	7,508	9,307	1,909

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	PEACHES—CLINGSTONE			PEACHES—FREESTONE			PEACHES—ALL	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt				13	5	18	13	5
Mendocino								
Shasta	14		14	67	14	81	81	14
Siskiyou	8		8	8		8	16	
Trinity				25		25	25	
Lassen	1		1	24	20	44	25	20
Modoc								
Plumas								
Alameda				4		4	4	
Contra Costa	125	23	148	638	263	901	763	286
Lake				1	8	9	1	8
Marin	1		1	2		2	3	
Monterey	1		1	29	1	30	30	1
Napa	10		10	104		104	114	
San Benito	39		39	6		6	45	
San Luis Obispo				5	12	17	5	12
San Mateo				7		7	7	
Santa Clara	120	20	140	161	36	197	281	56
Santa Cruz	2		2	22	1	23	24	1
Sonoma	43	5	48	60	3	63	103	8
Butte	2,032	434	2,466	360	34	394	2,392	468
Colusa	4		4	3		3	7	
Glenn				133	28	161	133	28
Sacramento	204	21	225	65	9	74	269	30
Solano	3	2	5	2,992	102	3,094	2,995	104
Sutter	11,261	1,873	13,134	273	53	326	11,534	1,926
Tehama	10	5	15	596	123	719	606	128
Yolo	15	47	62	503	11	514	518	58
Yuba	1,961	586	2,547	89	31	120	2,050	617
Fresno	836	92	928	7,983	1,269	9,252	8,819	1,361
Kern	23	4	27	170	93	263	193	97
Kings	362	141	503	1,577	79	1,656	1,939	220
Madera	115	186	301	637	484	1,121	752	670
Merced	3,993	447	4,440	2,868	528	3,396	6,861	975
San Joaquin	5,519	619	6,138	2,111	324	2,435	7,630	943
Stanislaus	11,052	2,765	13,817	2,997	208	3,205	14,049	2,973
Tulare	4,455	774	5,229	4,017	792	4,809	8,472	1,566
Alpine								
Amador	8		8	24		24	32	
Calaveras								
El Dorado	72	5	77	32	3	35	104	8
Inyo	1	1	2	5		5	6	1
Mariposa					2	2		2
Mono								
Nevada				6	1	7	6	1
Placer	583	158	741	435	65	500	1,018	223
Sierra								
Tuolumne								
Imperial								
Los Angeles	31	4	35	639	155	794	670	159
Orange	11	12	23	10	10	20	21	22
Riverside	329	20	349	995	144	1,139	1,324	164
San Bernardino	811	16	827	1,759	175	1,934	2,570	191
San Diego	4	1	5	295	129	424	299	130
Santa Barbara				24	6	30	24	6
Ventura				69	5	74	69	5
STATE	44,059	8,261	52,320	32,843	5,226	38,069	76,902	13,487

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	PEARS—BARTLETT			PEARS—OTHERS			PEARS—ALL	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt	4		4	1		1	5	
Mendocino	2,054	64	2,118	18		18	2,072	64
Shasta	13		13	7		7	20	
Siskiyou	4		4	11		11	15	
Trinity	5		5				5	
Lassen				1		1	1	
Modoc								
Plumas								
Alameda	54		54	5		5	59	
Contra Costa	1,917	38	1,955	208	25	233	2,125	63
Lake	3,594	406	4,000	5	23	28	3,599	429
Marin	104		104				104	
Monterey	15		15	136		136	151	
Napa	905	12	917	2		2	907	12
San Benito	137	17	154	451	10	461	588	27
San Luis Obispo	215		215	2		2	217	
San Mateo	24	6	30	13		13	37	6
Santa Clara	4,232	500	4,732	2,258	170	2,428	6,490	670
Santa Cruz	617	25	642	287	38	325	904	63
Sonoma	2,063	60	2,123	9	2	11	2,072	62
Butte	38		38	5		5	43	
Colusa	15		15	6		6	21	
Glenn	95		95	107		107	202	
Sacramento	3,805	467	4,272	176	10	186	3,981	477
Solano	2,368	140	2,508	243		243	2,611	140
Sutter	172	4	176	12		12	184	4
Tehama	6	1	7				6	1
Yolo	379	22	401	5		5	384	22
Yuba	740	12	752	73	22	95	813	34
Fresno	8		8				8	
Kern	90		90				90	
Kings								
Madera								
Merced								
San Joaquin	85	1	86	5		5	90	1
Stanislaus	5		5				5	
Tulare	20	5	25				20	5
Alpine								
Amador	41		41	1		1	42	
Calaveras	7		7				7	
El Dorado	3,638	69	3,707	472		472	4,110	69
Inyo								
Mariposa	8	1	9				8	1
Mono				1		1	1	
Nevada	897	52	949	56		56	953	52
Placer	4,960	807	5,767	520	27	547	5,480	834
Sierra								
Tuolumne	50		50	9		9	59	
Imperial								
Los Angeles	546	18	564	11		11	557	18
Orange	2		2				2	
Riverside	15		15	2		2	17	
San Bernardino	26	11	37	3	2	5	29	13
San Diego	157	22	179	21	2	23	178	24
Santa Barbara		1	1					1
Ventura	49	3	52				49	3
STATE	34,179	2,764	36,943	5,142	331	5,473	39,321	3,095

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	PLUMS			PRUNES		
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total
Del Norte				1		1
Humboldt	3		3	3		3
Mendocino	34	1	35	883	7	890
Shasta	2		2	225		225
Siskiyou						
Trinity						
Lassen						
Modoc						
Plumas						
Alameda	19		19	145	9	154
Contra Costa	106	56	162	182		182
Lake				667	93	760
Marin				20		20
Monterey	5	56	61	1		1
Napa	12		12	9,258	331	9,589
San Benito				3,593	52	3,645
San Luis Obispo				118	4	122
San Mateo				65		65
Santa Clara	201	21	222	45,012	2,768	47,780
Santa Cruz	363	20	383	655	12	667
Sonoma	174	6	180	18,338	733	19,071
Butte	65	42	107	2,694	346	3,040
Colusa	2		2	3,863	230	4,093
Glenn				1,082	404	1,486
Sacramento	227	1	228	1,887	25	1,912
Solano	652	12	664	3,908	306	4,214
Sutter	730	197	927	4,472	1,216	5,688
Tehama				1,771	512	2,283
Yolo	30		30	1,089	64	1,153
Yuba	340	18	358	919	219	1,138
Fresno	3,560	578	4,138	311	33	344
Kern	2,065	118	2,183	1		1
Kings	117	9	126	37	3	40
Madera	275	29	304		8	8
Merced	117	11	128	22		22
San Joaquin	1,091	105	1,196	101	1	102
Stanislaus	57		57			
Tulare	4,201	719	4,920	1,117	278	1,395
Alpine						
Amador	1		1	239		239
Calaveras	1		1	1		1
El Dorado	165	2	167			
Inyo						
Mariposa	1		1			
Mono						
Nevada	37	6	43			
Placer	7,945	640	8,585	44		44
Sierra						
Tuolumne						
Imperial						
Los Angeles	78	2	80	6	6	12
Orange	7	5	12			
Riverside	345	42	387	84	5	89
San Bernardino	431	131	562			
San Diego	33	29	62			
Santa Barbara						
Ventura						
STATE	23,492	2,856	26,348	102,814	7,665	110,479

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	ORANGES—NAVEL			ORANGES—MISCELLANEOUS			ORANGES—NAVEL AND MISCELLANEOUS	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt								
Mendocino								
Shasta								
Siskiyou								
Trinity								
Lassen								
Modoc								
Plumas								
Alameda	1		1				1	
Contra Costa	1		1				1	
Lake								
Marin								
Monterey								
Napa								
San Benito								
San Luis Obispo								
San Mateo								
Santa Clara	1		1	1		1	2	
Santa Cruz				3		3	3	
Sonoma								
Butte	783	12	795	52	2	54	835	14
Colusa	12		12	1		1	13	
Glenn	698	7	705	6		6	704	7
Sacramento	426		426	9		9	435	
Solano	5		5				5	
Sutter	3		3				3	
Tehama	32		32				32	
Yolo	18		18				18	
Yuba	6		6				6	
Fresno	2,663	209	2,872	59	24	83	2,722	233
Kern	1,259	33	1,292	74		74	1,333	33
Kings								
Madera								
Merced	15		15				15	
San Joaquin								
Stanislaus	13		13				13	
Tulare	25,301	770	26,071	33		33	25,334	770
Alpine								
Amador								
Calaveras		1	1					1
El Dorado								
Inyo								
Mariposa								
Mono								
Nevada								
Placer	11		11	1		1	12	
Sierra								
Tuolumne								
Imperial	38	8	46	182	67	249	220	75
Los Angeles	10,251	115	10,366	163		163	10,414	115
Orange	703	13	716				703	13
Riverside	11,408	130	11,538	604	264	868	12,012	394
San Bernardino	21,594	91	21,685	856	2	858	22,450	93
San Diego	690	26	716	29	14	43	719	40
Santa Barbara	17	3	20	1	7	8	18	10
Ventura	1,506	77	1,583				1,506	77
STATE	77,455	1,495	78,950	2,074	380	2,454	79,529	1,875

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	ORANGES—VALENCIA			ORANGES—ALL		
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total
Del Norte						
Humboldt						
Mendocino						
Shasta						
Siskiyou						
Trinity						
Lassen						
Modoc						
Plumas						
Alameda	1		1	2		2
Contra Costa				1		1
Lake						
Marin						
Monterey						
Napa	1		1	1		1
San Benito						
San Luis Obispo						
San Mateo						
Santa Clara				2		2
Santa Cruz				3		3
Sonoma						
Butte	6	1	7	841	15	856
Colusa				13		13
Glenn	20		20	724	7	731
Sacramento	10		10	445		445
Solano				5		5
Sutter				3		3
Tehama				32		32
Yolo	1		1	19		19
Yuba				6		6
Fresno	785	27	812	3,507	260	3,767
Kern	58		58	1,391	33	1,424
Kings						
Madera						
Merced	5		5	20		20
San Joaquin						
Stanislaus	3		3	16		16
Tulare	10,970	191	11,161	36,304	961	37,265
Alpine						
Amador						
Calaveras					1	1
El Dorado						
Inyo						
Mariposa						
Mono						
Nevada						
Placer				12		12
Sierra						
Tuolumne						
Imperial	459	2	461	679	77	756
Los Angeles	25,028	1,431	26,459	35,442	1,546	36,988
Orange	56,070	3,323	59,393	56,773	3,336	60,109
Riverside	4,815	478	5,293	16,827	872	17,699
San Bernardino	11,278	159	11,437	33,728	252	33,980
San Diego	6,218	907	7,125	6,937	947	7,884
Santa Barbara	91	1	92	109	11	120
Ventura	16,575	2,340	18,915	18,081	2,417	20,498
STATE	132,394	8,860	141,254	211,923	10,735	222,658

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	GRAPEFRUIT			LEMONS			LIMES	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt								
Mendocino								
Shasta								
Siskiyou								
Trinity								
Lassen								
Modoc								
Plumas								
Alameda				5		5		
Contra Costa								
Lake								
Marin								
Monterey								
Napa								
San Benito								
San Luis Obispo				1		1		
San Mateo								
Santa Clara				108		108	1	
Santa Cruz				3		3		
Sonoma				3		3		
Butte	1		1	15	1	16		
Colusa								
Glenn	6		6	1		1		
Sacramento	1		1					
Solano								
Sutter								
Tehama								
Yolo								
Yuba								
Fresno	43		43	207		207		
Kern	30	3	33	8		8		
Kings								
Madera								
Merced								
San Joaquin								
Stanislaus								
Tulare	366		366	1,021	93	1,114	11	
Alpine								
Amador								
Calaveras								
El Dorado								
Inyo								
Mariposa								
Mono								
Nevada								
Placer								
Sierra								
Tuolumne								
Imperial	1,365	1	1,366	68		68		
Los Angeles	792	9	801	10,440	294	10,734	38	2
Orange	241	6	247	4,938	321	5,259	34	
Riverside	3,208	281	3,489	3,234	171	3,405	6	
San Bernardino	3,359	20	3,379	5,636	240	5,876	4	
San Diego	265	1	266	5,375	365	5,740	237	1
Santa Barbara				6,818	1,462	8,280	13	1
Ventura	277	69	346	16,537	4,314	20,851		
STATE	9,954	390	10,344	54,418	7,261	61,679	344	4

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	OLIVES			DATES			AVOCADOS	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt								
Mendocino								
Shasta	760	10	770					
Siskiyou								
Trinity								
Lassen								
Modoc								
Plumas								
Alameda	25		25					
Contra Costa	27		27					
Lake	1		1					
Marin								
Monterey								
Napa	96		96					
San Benito	1		1					
San Luis Obispo	3		3					
San Mateo								
Santa Clara	21		21					
Santa Cruz							2	10
Sonoma	34	1	35					
Butte	4,473	568	5,041				1	3
Colusa	8	27	35					
Glenn	704	129	833					
Sacramento	1,813	11	1,824					
Solano	15		15					
Sutter	45	3	48					
Tehama	2,839	553	3,392					
Yolo	377	39	416					
Yuba	727		727					
Fresno	1,265	192	1,457				2	
Kern	380	81	461					
Kings	344		344					
Madera	494	150	644					
Merced	133	1	134					
San Joaquin	353	85	438					
Stanislaus	212	65	277					
Tulare	7,075	1,944	9,019				1	
Alpine								
Amador	5		5					
Calaveras	230	33	263					
El Dorado								
Inyo				35		35		
Mariposa	1		1					
Mono								
Nevada								
Placer	273	4	277					
Sierra								
Tuolumne								
Imperial				176	20	196		
Los Angeles	1,066	41	1,107				2,445	392
Orange	66	33	99				1,525	892
Riverside	1,133	79	1,212	3,891	950	4,841	54	174
San Bernardino	471	136	607	8		8	47	24
San Diego	1,062	8	1,070	30	4	34	6,785	4,689
Santa Barbara	266		266				345	403
Ventura	28		28				497	674
STATE	26,826	4,193	31,019	4,110	974	5,114	11,704	7,261

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	FIGS—KADOTA			FIGS—OTHER			FIGS—ALL	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt				1		1	1	
Mendocino								
Shasta				2		2	2	
Siskiyou								
Trinity								
Lassen								
Modoc								
Plumas								
Alameda								
Contra Costa	56		56				56	
Lake								
Marin								
Monterey				5		5	5	
Napa				1		1	1	
San Benito								
San Luis Obispo								
San Mateo								
Santa Clara				6		6	6	
Santa Cruz				2		2	2	
Sonoma				29		29	29	
Butte	19		19	85		85	104	
Colusa				10		10	10	
Glenn	156		156	43		43	199	
Sacramento	52		52	48		48	100	
Solano	4		4	133	8	141	137	8
Sutter								
Tehama	3		3	59		59	62	
Yolo				604	1	605	604	1
Yuba				128		128	128	
Fresno	859	26	885	15,106	947	16,053	15,965	973
Kern				5		5	5	
Kings								
Madera	19		19	686	760	1,446	705	760
Merced	3,680	133	3,813	5,604	330	5,934	9,284	463
San Joaquin	375	4	379	31		31	406	4
Stanislaus	114		114	48		48	162	
Tulare	584		584	386		386	970	
Alpine								
Amador								
Calaveras								
El Dorado								
Inyo								
Mariposa								
Mono								
Nevada								
Placer								
Sierra								
Tuolumne								
Imperial								
Los Angeles	66	1	67	118	14	132	184	15
Orange								
Riverside				91	14	105	91	14
San Bernardino								
San Diego				2	18	20	2	18
Santa Barbara								
Ventura								
STATE	5,987	164	6,151	23,233	2,092	25,325	29,220	2,256

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	PERSIMMONS			POMEGRANATES			QUINCES	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt								
Mendocino								
Shasta	66		66					
Siskiyou								
Trinity								
Lassen								
Modoc								
Plumas								
Alameda								
Contra Costa							2	
Lake								
Marin								
Monterey								
Napa	2		2					
San Benito								
San Luis Obispo								
San Mateo								
Santa Clara	6		6					
Santa Cruz	15	1	16					
Sonoma							2	
Butte	21		21					
Colusa								
Glenn	3		3					
Sacramento	7		7				152	
Solano								
Sutter	10		10					
Tehama								
Yolo								
Yuba	4		4					
Fresno	58		58	300		300		
Kern	7	5	12	7	5	12		
Kings	7		7					
Madera								
Merced	8		8	10		10		
San Joaquin	8		8				11	
Stanislaus	14		14	6		6	1	
Tulare	39	26	65	158	30	188	7	
Alpine								
Amador								
Calaveras								
El Dorado								
Inyo								
Mariposa								
Mono								
Nevada								
Placer	87	2	89				8	
Sierra								
Tuolumne								
Imperial								
Los Angeles	34	2	36					
Orange	151	13	164					
Riverside	35	2	37					
San Bernardino	22		22					
San Diego	47	1	48				1	
Santa Barbara	1		1					
Ventura								
STATE	652	52	704	481	35	516	184	

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	ALMONDS			CHESTNUTS			FILBERTS	
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total	Bearing	Non-bearing
Del Norte								
Humboldt				34		34		
Mendocino				3		3		
Shasta	11	4	15					
Siskiyou								
Trinity								
Lassen								
Modoc								
Plumas								
Alameda	92	1	93	4		4		
Contra Costa	7,445	1,362	8,807					
Lake	265	15	280	1		1		
Marin	7		7					
Monterey	3,797		3,797					
Napa								
San Benito	28		28					
San Luis Obispo	8,269	866	9,135					
San Mateo	4		4					
Santa Clara	175	27	202				1	
Santa Cruz	1		1	45	2	47	2	
Sonoma	7		7	4		4	15	4
Butte	13,215	2,685	15,900	1		1	10	
Colusa	9,207	1,469	10,676	2		2		
Glenn	4,115	727	4,842					
Sacramento	2,191	36	2,227					
Solano	1,929	275	2,204					
Sutter	4,654	1,341	5,995	2		2		
Tehama	1,633	389	2,022					
Yolo	8,838	659	9,497					
Yuba	284	397	681					
Fresno	613	708	1,321					
Kern	171	44	215					
Kings	5		5					
Madera	324	194	518					
Merced	6,539	2,106	8,645	1	1	2		
San Joaquin	8,225	1,878	10,103	130	6	136	1	
Stanislaus	6,018	703	6,721	1	5	6		
Tulare	292	40	332					
Alpine								
Amador	43		43	3		3		
Calaveras	142	11	153	15		15		
El Dorado	5		5	18	5	23		
Inyo								
Mariposa								
Mono								
Nevada				5		5	5	
Placer	397	29	426					
Sierra								
Tuolumne				14	3	17		
Imperial								
Los Angeles	1,748	489	2,237					
Orange	1		1	1		1		
Riverside	247	33	280					
San Bernardino	113	16	129					
San Diego	5	14	19					
Santa Barbara	37	24	61					
Ventura	204	4	208					
STATE	91,296	16,546	107,842	284	22	306	34	4

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	PECANS			WALNUTS		
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total
Del Norte						
Humboldt						
Mendocino				72		72
				323	118	441
Shasta				94	9	103
Siskiyou				5		5
Trinity				87		87
Lassen						
Modoc						
Plumas						
Alameda				852	267	1,119
Contra Costa	2		2	13,047	1,883	14,930
Lake				4,543	1,051	5,594
Marin				72	9	81
Monterey				743	258	1,001
Napa				1,552	44	1,596
San Benito				1,649	152	1,801
San Luis Obispo				674	353	1,027
San Mateo				94	23	117
Santa Clara				8,194	1,425	9,619
Santa Cruz				42	4	46
Sonoma				1,074	311	1,385
Butte	22	2	24	2,327	1,261	3,588
Colusa	2	1	3	877	338	1,215
Glenn	7	9	16	768	50	818
Sacramento	6	1	7	1,246	129	1,375
Solano				542	74	616
Sutter	4		4	2,688	2,362	5,050
Tehama	6		6	1,003	916	1,919
Yolo				727	146	873
Yuba	3		3	722	264	986
Fresno	41	3	44	1,005	407	1,412
Kern	22	3	25		22	22
Kings	1	1	2	625	198	823
Madera				47	2	49
Merced	23		23	2,000	674	2,674
San Joaquin				11,707	1,436	13,143
Stanislaus	32	5	37	6,180	2,953	9,133
Tulare	38	57	95	3,921	2,721	6,642
Alpine						
Amador						
Calaveras				144		144
El Dorado				389	51	440
Inyo				105	59	164
Mariposa						
Mono						
Nevada						
Placer				15		15
Sierra				28		28
Tuolumne						
				21		21
Imperial	148		148			
Los Angeles	76		76	7,814	99	7,913
Orange	2		2	1,535	11	1,546
Riverside	133	19	152	5,644	425	6,069
San Bernardino	4		4	4,691	67	4,758
San Diego	32	2	34	1,060	103	1,163
Santa Barbara				2,060	703	2,763
Ventura				17,776	2,552	20,328
STATE	604	103	707	110,784	23,930	134,714

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	GRAPES—RAISIN			GRAPES—TABLE		
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total
Del Norte						
Humboldt	3		3			
Mendocino	24		24	7		7
Shasta	64		64	33		33
Siskiyou						
Trinity						
Lassen						
Modoc						
Plumas						
Alameda	16		16	9	7	16
Contra Costa	36		36	70	1	71
Lake				1		1
Marin				2		2
Monterey	1		1	1	2	3
Napa	11		11	47		47
San Benito	11		11	18		18
San Luis Obispo	3	1	4	11		11
San Mateo				2		2
Santa Clara				19	10	29
Santa Cruz	3		3	30		30
Sonoma	7		7	23	12	35
Butte	21		21	59		59
Colusa	79		79	6		6
Glenn	36		36			
Sacramento	160	3	163	3,442	24	3,466
Solano	63		63	21		21
Sutter	93		93	1		1
Tehama	3		3	13		13
Yolo	103		103	10		10
Yuba	5		5			
Fresno	133,740	5,015	138,755	16,771	1,561	18,332
Kern	14,467	352	14,819	10,582	578	11,160
Kings	7,308	39	7,347	88		88
Madera	14,430	283	14,713	503		503
Merced	10,258	196	10,454	1,854	13	1,867
San Joaquin	846	30	876	23,496	251	23,747
Stanislaus	6,722	87	6,809	1,043		1,043
Tulare	34,717	581	35,298	30,506	1,911	32,417
Alpine						
Amador	16		16	10		10
Calaveras	12		12	2		2
El Dorado						
Inyo				15		15
Mariposa						
Mono						
Nevada	6		6	14		14
Placer	11		11	148		148
Sierra						
Tuolumne						
Imperial	638	262	900	5	255	260
Los Angeles	204		204	482	11	493
Orange	3		3	48	1	49
Riverside	4,771	1,718	6,489	312	242	554
San Bernardino	3,241	21	3,262	1,579	14	1,593
San Diego	1,756	448	2,204	392	264	656
Santa Barbara					3	3
Ventura				187	4	191
STATE	233,888	9,036	242,924	91,862	5,164	97,026

CALIFORNIA FRUIT AND NUT ACREAGE ESTIMATES BY COUNTIES AND STATE TOTAL AS OF 1950—Continued

County	GRAPES—WINE			GRAPES—ALL		
	Bearing	Non-bearing	Total	Bearing	Non-bearing	Total
Del Norte						
Humboldt				3		3
Mendocino	6,540	719	7,259	6,571	719	7,290
Shasta	261		261	358		358
Siskiyou	2		2	2		2
Trinity						
Lassen						
Modoc						
Plumas						
Alameda	2,772	258	3,030	2,797	265	3,062
Contra Costa	3,487	110	3,597	3,593	111	3,704
Lake	159	3	162	160	3	163
Marin	176		176	178		178
Monterey	67		67	69	2	71
Napa	10,015	106	10,121	10,073	106	10,179
San Benito	1,655	15	1,670	1,684	15	1,699
San Luis Obispo	589	11	600	603	12	615
San Mateo	11		11	13		13
Santa Clara	5,132	465	5,597	5,151	475	5,626
Santa Cruz	442		442	475		475
Sonoma	15,819	215	16,034	15,849	227	16,076
Butte	38	2	40	118	2	120
Colusa	79		79	164		164
Glenn	44		44	80		80
Sacramento	1,359	25	1,384	4,961	52	5,013
Solano	646	18	664	730	18	748
Sutter	37		37	131		131
Tehama	116		116	132		132
Yolo	404	54	458	517	54	571
Yuba	74		74	79		79
Fresno	11,203	819	12,022	161,714	7,395	169,109
Kern	4,398	40	4,438	29,447	970	30,417
Kings	838	11	849	8,234	50	8,284
Madera	3,875	38	3,913	18,808	321	19,129
Merced	5,101	108	5,209	17,213	317	17,530
San Joaquin	32,878	443	33,321	57,220	724	57,944
Stanislaus	8,982	96	9,078	16,747	183	16,930
Tulare	6,838	231	7,069	72,061	2,723	74,784
Alpine						
Amador	752		752	778		778
Calaveras	200		200	214		214
El Dorado	79		79	79		79
Inyo	2		2	17		17
Mariposa						
Mono						
Nevada	53		53	73		73
Placer	1,463	183	1,646	1,622	183	1,805
Sierra						
Tuolumne	4		4	4		4
Imperial				643	517	1,160
Los Angeles	671		671	1,357	11	1,368
Orange	3		3	54	1	55
Riverside	4,115	25	4,140	9,198	1,985	11,183
San Bernardino	26,683	256	26,939	31,503	291	31,794
San Diego	1,336	10	1,346	3,484	722	4,206
Santa Barbara	6	3	9	6	6	12
Ventura	15		15	202	4	206
STATE	159,419	4,264	163,683	485,169	18,464	503,633

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
ALMONDS—																	
Drake	1	30	71	68	70	65	35	82	68	87	242	796	610	7,635	9,860	9,549	311
IXL	24	21	36	61	92	78	56	76	49	79	119	489	342	6,195	7,717	7,397	320
Jordanola	242	379	490	464	413	242	99	128	113	165	546	203	38	84	3,606	1,386	2,220
Lewelling	3	1		4	8	10		25	5	3	10	10	10	214	303	277	26
Mission[1]	136	330	514	717	998	665	511	690	677	729	1,159	3,195	1,090	7,306	18,717	15,463	3,254
Ne Plus Ultra	116	174	357	369	378	288	277	243	329	437	667	2,208	991	6,883	13,717	11,985	1,732
Nonpareil	377	1,120	1,206	1,518	1,757	1,214	960	933	1,182	1,156	2,137	7,956	4,183	18,600	44,269	37,101	7,168
Peerless	72	96	176	263	245	155	143	127	101	145	387	931	578	2,578	5,997	4,966	1,031
Other almonds	35	92	102	71	67	83	100	110	76	100	96	352	172	2,200	3,656	3,172	484
All almonds	1,006	2,243	2,952	3,535	4,028	2,800	2,181	2,414	2,600	2,901	5,363	16,140	7,984	51,695	107,842	91,296	16,546
APPLES—																	
Astrachan			32	14	76	33	10	6	14	22	21	63	40	94	425	260	165
Bellflower												11	2	1,117	1,130	1,130	
Delicious[2]	117	114	139	308	471	251	280	132	172	145	231	636	478	1,447	4,921	3,241	1,680
Golden Delicious	5	8	41	114	105	63	25	11	15	9	17	86	26	185	710	349	361
Gravenstein		1	2	11	34	25	3	5	6	5	28	117	215	7,507	7,959	7,883	76
Jonathan	6	29	44	72	35	21	28	26	8	5	21	97	91	731	1,214	979	235
Newtown	16	39	37	219	111	47	60	70	29	67	43	324	267	4,993	6,322	5,793	529
Rome Beauty	44	13	25	45	87	45	19	21	14	11	41	130	136	952	1,583	1,305	278
White Pearmain				3	11			1	4			14	25	334	392	378	14
Winesap	2	2	9	6	36	12	7	8	1	8	7	26	52	541	717	643	74
Other apples	13	49	59	63	97	55	39	21	10	12	16	163	243	3,514	4,354	3,979	375
All apples	203	255	388	855	1,063	552	471	301	273	284	425	1,667	1,575	21,415	29,727	25,940	3,787
APRICOTS—																	
Blenheim and Royal	80	153	215	601	407	483	305	390	471	485	840	3,508	2,901	28,004	38,843	37,468	1,375
Moorpark and Hemskirk		1	9		2	1	2		5	8	17	23	31	897	996	984	12
Tilton	14	2	106	109	134	81	45	136	117	162	109	1,005	610	3,503	6,133	5,815	318
Other apricots	25	15	8	24	16	10	13	33	12	13	14	65	300	983	1,531	1,452	79
All apricots	119	171	338	734	559	575	365	559	605	668	980	4,601	3,842	33,387	47,503	45,719	1,784

* See discussion in introduction.
[1] Synonymous with "Texas."
[2] All red varieties.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
AVOCADOS—																	
Anaheim	2	13	31	22	30	10	15	14	3	6	8	41	100	64	359	261	98
Dickinson				1	1						2	4	25	33	66	64	2
Fuerte	457	1,070	1,848	1,190	963	606	625	362	400	473	345	1,560	2,904	2,094	14,897	9,369	5,528
Lyon							3				2	7	10	12	34	34	
Nabal	3	4	7	5	6	4	5	6	4	8	7	47	110	48	264	239	25
Puebla									1			5	32	73	111	111	
Other avocados	244	424	415	283	242	98	123	47	77	81	130	337	335	398	3,234	1,626	1,608
All avocados	706	1,511	2,301	1,501	1,242	718	771	429	485	568	494	2,001	3,516	2,722	18,965	11,704	7,261
CHERRIES—																	
Bing	45	247	166	239	66	122	51	61	57	48	62	316	582	2,055	4,117	3,250	867
Black Republican	2	8	3			1		1	1	4	2	13	32	164	231	217	14
Chapman	4	3	3	8	3	1	4	1	6	1	26	33	74	143	310	289	21
Lambert	12	15	6	16	3	11	2		2	2	2	34	83	310	498	439	59
Royal Ann	58	276	153	129	49	31	44	36	34	32	59	190	391	2,226	3,708	3,020	688
Tartarian	9	45	26	34	17	33	17	12	15	14	15	114	282	1,111	1,744	1,582	162
Other cherries	29	20	8	15	5	21	11	3	5	5	8	45	83	350	608	510	98
All cherries	159	614	365	441	143	220	129	114	120	106	174	745	1,527	6,359	11,216	9,307	1,909
CHESTNUTS—all varieties		1	8	3	1	3	1	5	11	7	3	29	82	152	306	284	22
DATES—																	
Deglet Noor	11	8	57	202	378	146	173	93	86	78	110	681	913	1,270	4,206	3,404	802
Khadrawy				7	8	1	1	4		7	27	40	18	44	157	141	16
Saidy												8	17	75	100	100	
Zahidi												30	32	52	209	141	68
Other varieties		2	18	28	8	14	8	3	4	2	10	68	51	210	442	354	88
All dates	11	10	99	263	418	173	186	103	92	90	160	827	1,031	1,651	5,114	4,140	974

* See discussion in introduction.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
FIGS—																	
Black varieties				236	184	142		15	20	1	9	62	50	3,647	4,366	3,804	562
Calimyrna	6			10				16	15		2	44	109	11,471	11,673	11,657	16
Kadota			20	139	184	288	339	28	20	19	4	204	117	4,789	6,151	5,987	164
White Adriatic	16	111	117	182	222	515	311	152	81	92	92	150	89	6,814	8,944	7,470	1,474
Other figs		7	7	10	8	2	17	13	5	7	17	25	49	175	342	302	40
All figs	22	118	144	577	598	947	667	224	141	119	124	485	414	26,896	31,476	29,220	2,256
FILBERTS—all varieties			2	2		2	6	3			4	7	9	3	38	34	4
GRAPES—RAISIN																	
Muscat	275	241	313	1,015	721	856	457	163	457	181	648	1,508	771	32,185	39,791	38,962	829
Sultana			42		3	6	10	8	5	1	25	187	79	4,212	4,578	4,536	42
Thompson Seedless	1,913	2,546	3,633	7,353	6,584	6,586	4,373	2,734	2,947	2,910	4,958	20,160	14,112	113,684	194,493	186,400	8,093
Zante Currant	8	21	25	87	71	64	23	98	68	101	143	692	506	548	2,455	2,401	54
Other raisin varieties		18		11	13	31	172	216	30	25	35	243	161	652	1,607	1,589	18
All raisin varieties	2,196	2,826	4,013	8,466	7,392	7,543	5,035	3,219	3,507	3,218	5,809	22,790	15,629	151,281	242,924	233,888	9,036
GRAPES—TABLE																	
Cardinal	422	634	766	117	172	44	10			4			5	47	2,221	399	1,822
Concord[1]	1	10	54	11	71	24	7	6	11	15	23	57	45	131	466	401	65
Emperor	531	148	646	1,974	2,505	3,400	1,971	992	920	455	1,505	5,237	2,741	12,858	35,883	34,558	1,325
Malaga	14	28	28	68	256	271	101	24	8	40	61	342	570	9,490	11,301	11,231	70
Red Malaga	68	207	428	918	391	314	752	212	69	151	184	881	559	2,317	7,451	6,748	703
Ribier	10	12	260	329	425	433	359	141	139	236	135	1,238	923	2,062	6,702	6,420	282
Tokay	147	97	200	499	548	871	740	356	348	401	470	1,492	930	20,462	27,561	27,117	444
Other table varieties	150	185	108	115	323	306	201	74	162	89	84	503	164	2,977	5,441	4,988	453
All table varieties	1,343	1,321	2,490	4,031	4,691	5,663	4,141	1,805	1,657	1,391	2,462	9,750	5,937	50,344	97,026	91,862	5,164

* See discussion in introduction.

[1] Concord and other American type grapes.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
GRAPES—WINE																	
Alicante Bouschet	27	16	46	276	650	393	293	75	39	106	98	742	1,853	14,222	18,836	18,747	89
Burger		4	88	59	160	446	326	217	31	56	58	668	208	1,413	3,734	3,642	92
Carignane	107	168	584	1,027	1,782	2,433	1,431	862	577	562	773	2,260	2,735	17,299	32,600	31,734	866
Colombar	7	15	107	128	146	35	51	13	25	12	10	98	113	368	1,128	941	187
Franken Riesling	5	18	11	185	163	125	60	14	32	19	35	87	52	345	1,151	1,092	59
Golden Chasselas	6	19	109	575	371	692	551	112	327	100	240	937	576	1,531	6,146	6,000	146
Grenache	67	77	259	903	753	1,519	610	274	820	178	243	714	209	2,712	9,338	8,923	415
Mataro	24	6	7	10	106	28	9	2	7		52	223	582	4,044	5,100	5,053	47
Mission	36		178	372	479	1,262	519	224	250	99	260	1,040	380	6,276	11,375	11,152	223
Palomino	5	10	63	540	731	1,502	459	159	83	38	43	487	177	428	4,725	4,627	98
Petite Sirah	1	1	40	45	64	86	149	41	101	14	64	201	320	3,973	5,100	5,058	42
Sauvignon Blanc	5	22	51	126	172	168	69	75	69	31	81	301	146	593	1,909	1,831	78
Zinfandel	35	195	296	526	690	827	505	416	392	442	780	2,603	3,669	29,802	41,178	40,510	668
Other white varieties	37	89	177	337	393	1,045	714	384	273	79	123	1,084	790	2,476	8,001	7,584	417
Other dark varieties	293	151	356	710	864	1,050	905	184	242	120	367	1,331	640	6,149	13,362	12,525	837
All wine varieties	655	791	2,372	5,819	7,524	11,611	6,651	3,052	3,268	1,856	3,227	12,776	12,450	91,631	163,683	159,419	4,264
GRAPEFRUIT—																	
Marsh		9	25	30	73	41	35	39	40	40	117	1,603	2,873	4,838	9,763	9,626	137
Other grapefruit	32	9	103	55	54		13	3	2	1	7	66	44	192	581	328	253
All grapefruit	32	18	128	85	127	41	48	42	42	41	124	1,669	2,917	5,030	10,344	9,954	390
LEMONS—																	
Eureka	1,116	1,754	1,551	1,285	976	611	710	685	807	1,215	2,792	11,263	10,137	19,984	54,886	48,204	6,682
Lisbon	45	21	46	143	61	18	40	34	90	71	189	740	595	2,623	4,716	4,396	320
Villa Franca	22	13	38	41	14	20	8	1	16	5	38	354	146	531	1,247	1,119	128
Other lemons	12	2	102	3	11	3	3	2	2	8	13	127	67	475	830	699	131
All lemons	1,195	1,790	1,737	1,472	1,062	652	761	722	915	1,299	3,032	12,484	10,945	23,613	61,679	54,418	7,261
LIMES—all varieties				2	7	4	9	29	24	15	32	155	65	6	348	344	4

* See discussion in introduction.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
NECTARINES—																	
Gower	23			28	5	6	18	19	9	40	38	144	105	73	508	457	51
Quetta	17	19	9	21	15	22	28	2	20	17	16	112	70	102	470	404	66
Rivers	34	12	6	2	10	10	47	47	63	101	145	246	127	22	872	818	54
Stanwick				2						16	2	109	24	102	255	253	2
Other nectarines	97	143	94	69	19	51	85	10	12	8	38	95	53	19	793	390	403
All nectarines	171	174	109	122	49	89	178	78	104	182	239	706	379	318	2,898	2,322	576
OLIVES—																	
Ascolano		37		5	20	22	20	4	28	2	16	2	8	632	796	692	104
Barouni			2	2			7				2	2	2	291	308	297	11
Manzanillo	202	109	326	287	353	547	405	239	225	84	185	148	216	6,161	9,487	7,258	2,229
Mission	2	21	85	137	125	265	71	42	110	49	70	155	211	13,209	14,552	13,846	706
Sevillano	136	34	115	160	269	111	63	38	48	42	118	93	92	3,299	4,618	3,730	888
Other olives	32		48	18	21	32	94	10	7	7	17	13	25	934	1,258	1,003	255
All olives	372	201	576	609	788	977	660	333	418	184	408	413	554	24,526	31,019	26,826	4,193
ORANGES—																	
Valencia	350	690	2,668	2,743	2,366	1,870	1,546	1,168	1,455	1,278	2,541	10,897	20,079	91,603	141,254	132,394	8,860
Navel	205	131	334	465	248	189	432	204	214	246	445	2,519	4,711	68,607	78,950	77,455	1,495
Tangerines	50	78	44	59	106	1	14	15	71	5	18	74	124	280	939	602	337
Other varieties			18	8	3	5		1	7	6	2	37	23	1,110	1,220	1,191	29
Seedlings		7		7									1	280	295	281	14
Navel and miscellaneous	255	216	396	539	357	195	446	220	292	257	465	2,630	4,859	70,277	81,404	79,529	1,875
All oranges	605	906	3,064	3,282	2,723	2,065	1,992	1,388	1,747	1,535	3,006	13,527	24,938	161,880	222,658	211,923	10,735

* See discussion in introduction.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
PEACHES—CLINGSTONE																	
Andora	40	130	209	72	53	84	203	111	36	17	15	22	4		996	545	451
Carolyn	33	49	214	139	148	127	172	172	175	30	54	54		20	1,387	952	435
Cortez	296	357	273	237	166	96	17					21	2		1,465	302	1,163
Fortuna	90	311	212	434	337	475	717	317	116	96	46	43	4	5	3,203	2,156	1,047
Gaume	63	81	55	59	75	133	130	130	469	386	584	2,797	942	664	6,568	6,310	258
Halford	294	334	287	214	121	275	480	496	870	748	743	3,442	681	382	9,367	8,238	1,129
Johnson	22	39	55	35	58	70	111	84	204	133	240	756	102	77	1,986	1,835	151
Libbee						5	2	6	22	51	29	632	29	201	977	977	
Palora	102	303	201	136	98	155	139	147	283	295	274	1,146	590	1,710	5,579	4,837	742
Peak	96	123	129	171	113	94	193	207	264	388	290	1,178	294	821	4,361	3,842	519
Phillips	4	10	24	9	26	19	46	74	176	42	111	323	117	1,971	2,952	2,905	47
Sims	33	24	14	37	51	55	78	108	222	198	237	991	163	779	2,990	2,882	108
Stuart—Gomes	130	161	211	129	191	260	279	482	366	184	108	212	41	43	2,797	2,166	631
Other clingstones	226	588	372	394	400	644	449	452	591	489	485	1,465	274	863	7,692	6,112	1,580
All clingstones	1,429	2,510	2,256	2,066	1,837	2,492	3,016	2,786	3,794	3,057	3,216	13,082	3,243	7,536	52,320	44,059	8,261
PEACHES—FREESTONE																	
Babcock	14		3	6	29	20	47	25	47	34	69	252	54	20	620	597	23
Crawford			3		1	1			1	2	7	6	3	40	64	61	3
Elberta	244	240	272	693	1,241	861	762	572	444	536	880	3,817	1,855	4,214	16,631	15,174	1,457
Early Elberta	155	153	82	212	430	373	273	165	225	207	199	638	99	139	3,350	2,747	603
J. H. Hale	208	96	49	135	272	153	168	68	88	71	78	615	552	948	3,501	3,009	492
Lovell		1	3	40	122	50	39	57	76	46	153	1,349	482	1,161	3,579	3,535	44
Muir	2		10	18	29	43	16	15	23	12	84	503	265	896	1,916	1,886	30
Rio Oso Gem	128	130	147	279	343	297	235	166	226	95	167	453	61	54	2,781	2,097	684
Salway	2		5	6	6	2		1	2	2	1	38	44	23	132	119	13
Other freestones	377	349	318	826	433	370	333	224	132	297	127	862	398	449	5,495	3,618	1,877
All freestones	1,130	969	892	2,215	2,906	2,170	1,873	1,293	1,264	1,302	1,765	8,533	3,813	7,944	38,069	32,843	5,226
PEACHES, all	2,559	3,479	3,148	4,281	4,743	4,662	4,889	4,079	5,058	4,359	4,981	21,615	7,056	15,480	90,389	76,902	13,487

* See discussion in introduction.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
PEARS—																	
Bartlett	309	616	551	501	396	273	220	167	259	108	343	1,357	2,728	29,115	36,943	34,179	2,764
Beurre Bosc			1	1							9	19	73	518	621	619	2
Beurre Hardy	22	32	65	36	40	43	21	7	24	3	25	178	201	1,523	2,220	1,978	242
Comice		4		32	4				5	7	3	41	36	662	794	754	40
D'Anjou		23	1							1	11	10	38	163	247	223	24
Winter Nelis						2					10	21	52	829	914	912	2
Other pears	8		6	4	1	2	1	3	3		2	58	76	513	677	656	21
Other than Bartlett	30	59	73	73	45	47	22	10	32	11	60	327	476	4,208	5,473	5,142	331
All pears	339	675	624	574	441	320	242	177	291	119	403	1,684	3,204	33,323	42,416	39,321	3,095
PECANS—all varieties		6	15	8	34	21	6	13	8	41	25	106	238	186	707	604	103
PERSIMMONS—																	
Hachiya	7	20	12	10	3	1		2		4	11	69	104	365	608	556	52
Other persimmons											10	36	10	40	96	96	
All persimmons	7	20	12	10	3	1		2		4	21	105	114	405	704	652	52
PLUMS—																	
Beauty	93	79	25	93	99	132	236	91	16	18	68	378	307	1,009	2,644	2,354	290
Burbank		2	5	2	4	3	1		9	1	15	69	83	467	661	652	9
Climax				1			5	1	1			12	11	202	233	232	1
Duarte	42	91	111	129	233	211	133	111	102	51	116	369	454	776	2,929	2,549	380
Grand Duke							1					1	7	42	51	51	
Kelsey	3	13	7	8	15	8	45	6	5	20	20	129	163	480	922	891	31
President	45	65	31	94	88	115	104	86	46	18	62	202	235	863	2,054	1,814	240
Santa Rosa	150	155	213	382	598	773	797	648	394	386	464	975	639	2,382	8,956	8,050	906
Tragedy	22	4	13	25	5	26	37	8	8	19	54	101	71	297	690	625	65
Wickson	18	19	3	4	2	64	6	2	4	2	15	92	160	519	910	866	44
Other plums	195	201	205	283	360	344	292	225	225	85	296	1,028	574	1,985	6,298	5,408	890
All plums	568	629	613	1,021	1,404	1,676	1,657	1,178	810	600	1,110	3,356	2,704	9,022	26,348	23,492	2,856

* See discussion in introduction.

CALIFORNIA FRUIT AND NUT CROP ACREAGES AS OF 1950—BY VARIETIES AND AGE GROUPS—STATE SUMMARY—Continued

Acreage Planted During Years Shown and Standing in 1950

Crop and variety	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1935 to 1939	1930 to 1934	1929 or earlier	Total	Bearing acreage in 1950*	Non-bearing acreage in 1950*
POMEGRANATES—																	
Wonderful				30	10	4					5	126	58	223	456	426	30
Other pomegranates				5						1				54	60	55	5
All pomegranates				35	10	4				1	5	126	58	277	516	481	35
PRUNES—																	
Burton			18	40	4	26	26	21	27	8	7	12	21	206	416	328	88
French	378	614	1,451	1,849	1,334	1,009	766	472	862	543	746	3,762	4,465	77,200	95,451	88,584	6,867
Imperial	9	10	68	44	75	30	53	25	146	70	77	582	838	6,652	8,679	8,426	253
Robe de Sergeant	12		80	128	30	31	17	17	37	5	18	184	139	804	1,502	1,221	281
Sugar	10	12	18	16	1	16	31	7	5	5	45	181	224	3,292	3,863	3,789	74
Other prunes	8	4	10	24	36	18	18	15	9	3	23	24	13	363	568	466	102
All prunes	417	640	1,645	2,101	1,480	1,130	911	557	1,086	634	916	4,745	5,700	88,517	110,479	102,814	7,665
QUINCES—all varieties							11	20	55		3	33	17	45	184	184	
WALNUTS—																	
Concord	4	25	34	169	342	76	68	15	39	160	300	605	1,682	5,054	8,573	7,851	722
Eureka	103	86	268	527	439	396	328	311	278	238	352	1,545	2,099	9,328	14,151	12,004	2,147
Franquette	254	470	838	1,891	2,112	1,936	1,238	967	1,239	832	1,401	3,888	5,178	12,792	16,298	14,151	2,147
Hartley	629	292	274	478	438	261	86	116	115	60	100	165	143	125	35,036	24,246	10,790
Mayette	19	43	44	110	142	88	129	87	89	85	157	530	729	3,243	3,282	734	2,548
Payne	442	641	734	681	753	610	388	421	389	501	916	3,281	3,661	8,956	5,495	4,916	579
Placentia and similar	83	181	90	459	211	118	68	62	56	78	184	1,130	3,512	24,044	22,374	18,488	3,886
Other varieties	175	286	377	340	325	166	152	182	68	88	253	613	1,196	6,786	30,276	29,066	1,210
Seedlings	3	61	14	31	50	50	1		83		2	124	24	1,930	11,007	9,169	1,838
All walnuts	1,712	2,085	2,673	4,686	4,812	3,701	2,458	2,161	2,356	2,042	3,665	11,881	18,224	72,258	2,373	2,163	210
															134,714	110,784	23,930

* See discussion in introduction.

MISCELLANEOUS DIASPIDID SCALE STUDIES

(Homoptera; Coccoidea; Diaspididae)

SCALE STUDIES—PART VII

By HOWARD L. MCKENZIE
State Department of Agriculture
Sacramento, California

The diaspidid scale described in this paper is one of numerous lots of scale insects which have been received for identification in the insect taxonomy office. Among other things much of the identification work in this office includes insects intercepted on plant material coming in from other states. Such is the case at hand where the new scale species was found on inspection by the Riverside Agricultural Commissioner's office, and subsequently forwarded to this department for determination.

This information is published not only to clarify identification problems in this economically important group of insects, but also to complete the determination work of the diaspidids for the period during which the species was received.

The Genus *Hemiberlesia*, Cockerell

Hemiberlesia includes a series of species which show a grading from one extreme to another. It is, therefore, virtually impossible to point out a single "key character" which would segregate the group from *Diaspidiotus*, it closest ally. Ferris admits this, as will be noted in his Atlas of the Scale Insects of North America, SII-232, 1938.

In general, *Hemiberlesia* has a tendency toward a well developed, conspicuously large anal opening (generally situated quite near the margin) ; a small size or obsolete third lobe ; usually elaborately developed pygidial plates, and the presence of marked intersegmental scleroses. Actually much the same may be said about *Diaspidiotus*. Ferris has indicated that in general this genus has a smaller anal opening situated farther from the margin than in *Hemiberlesia*, plates usually quite small, although at times quite well developed, and the presence of marked intersegmental scleroses.

In the case of the new species described below, the characters appear to fit *Hemiberlesia* somewhat better than *Diaspidiotus*. I am, therefore, tentatively assigning the species to the former genus.

Hosts and Distribution. Type from *Abies* sp., originating from Santa Rita, New Mexico, on December 21, 1948, and intercepted in quarantine at Hemet, Riverside County, California, by O. H. Eggen, County Agricultural Inspector.

Hemiberlesia pseudorapax McKenzie, new species

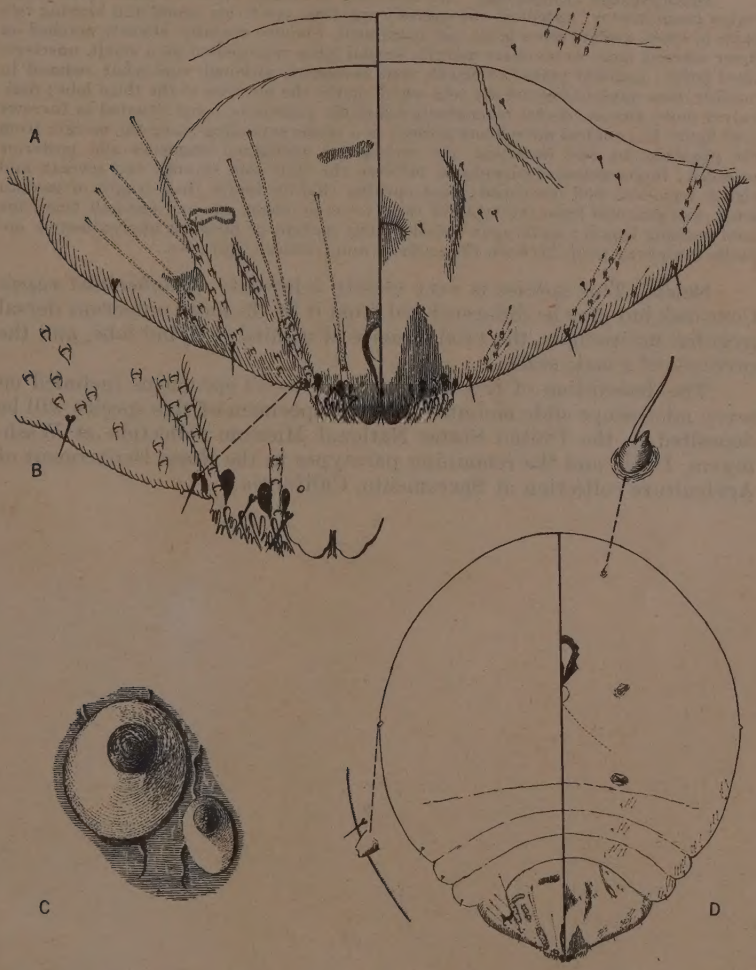

FIGURE 1. *A*, pygidium of adult female; *B*, details of the dorsal aspect of the pygidial margin; *C*, habit; *D*, body of adult female. Unlettered details are connected to their points of origin by guide lines and should be readily identifiable.

The figure was prepared by the author. It was based upon well stained material, which emphasizes the derm sclerotization.

Habit. Occurring on the bark. Scale of the female averages approximately 1½ mm. in diameter, gray, with a darker, reddish-brown, subcentral exuvium (sometimes a light gray wax film covers the exuvium); scale of the male similar in color to that of the female, elongate, exuvium near one end.

RECOGNITION CHARACTERS. As mounted, in length about 1¼ mm.; prosomatic region membranous; antennae one-spined; pygidium relatively broad and bearing two pairs of lobes, median lobes large and prominent, rounded apically, slightly notched on inner margin, more so on outer margin, second lobes represented as a small, unsclerotized point; pygidial plates fimbriate, well developed, although somewhat reduced in number, none present beyond the seta which marks the position of the third lobe; perivulvar pores absent; dorsal macroducts relatively numerous, some situated in furrows (see figure 1); ventral microducts present in a series extending along the margin from the pygidium to, and including, the prepygidial abdominal segments and posterior prosoma; intersegmental paraphyses between the sixth and seventh and seventh and eighth segments well developed; anal opening slightly larger than length of median lobes, and removed from the bases of these lobes by about one and one-half times the anal opening length; small spur present along margin of prosoma approximately opposite a midway point between the anterior and posterior spiracles.

Notes. This species is very closely related to *Hemiberlesia rapax* Comstock but may be differentiated from it by the more numerous dorsal pygidial macroducts, the total absence of a third pygidial lobe, and the presence of a male scale.

The description of this scale is based on 13 specimens included on seven microscope slide mounts. The type specimen of this species will be deposited in the United States National Museum collection at Washington, D. C., and the remaining paratypes in the State Department of Agriculture collection at Sacramento, California.

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